

REMARKS

Claims 1, 2, 4-14, and 16-26 are now pending in the application. Claims 1, 2, 4-14, and 16-26 stand rejected. Claims 1, 2, 10, 23, and 25 are amended. Support for the amendments may be found in the Specification as originally filed at paragraphs [0025]-[0031]. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 1, 2, 4-14, and 16-26 stand rejected under 35 U.S.C. 112, second paragraph, because the term “necessarily” in claims 1 and 10, and the terms “tightly coupled”, “instant feedback”, and “immediate opportunity” are not defined in the Specification. This rejection is respectfully traversed.

Applicants have deleted the objectionable phrases from the claims.

Accordingly, Applicants respectfully request the Examiner withdraw the rejection under 35 U.S.C. 112, first paragraph.

REJECTION UNDER 35 U.S.C. § 102

Claims 1, 2, 6, 8-10, 13, 14, 17, 19, 20, and 23 to 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Takebayashi et al. (U.S. Pat. No. 5,577,165). This rejection is respectfully traversed.

Takebayashi et al. is generally directed toward a speech dialogue system. In particular, Takebayashi et al. is directed toward an order taking system at a fast food restaurant that adds up the number of input items in an order form and allows a customer to make corrections by voice. However, all of the fields of the food order form are simple integer fields, and are therefore incapable of containing different kinds of

recognized values in a meaningful sequence. Thus, Takebayashi et al. does not teach: obtaining blocks of text from input utterances separated from other input utterances by natural speech pauses, exactly one block of text per input utterance; determining whether a block of text contains recognized values as opposed to commands; and populating a license plate number field of a form by concatenating, based on a sequence of input utterances from which the blocks of text are obtained, blocks of text determined to contain recognized values. Nor does Takebayashi et al. teach echoing blocks of text back to the speaker via a text-to-speech system, wherein audio feedback echoing the blocks of text is performed upon interpretation of each input utterance, and a sequence of recognized values echoed in the audio feedback exactly reflects a sequence of spotted words within the input utterance from which the recognized values are obtained. Moreover, Takebayashi et al. does not teach affording the speaker an opportunity to correct recognition errors by: (a) speaking a command operable to designate a particular one of plural recognized blocks of text in the license plate field for replacement; and (b) providing a subsequent input utterance containing field specific values to replace the particular recognized block of text in the license plate field without replacing at least one other recognized block of text in the license plate field.

Applicants' claimed invention is directed toward hands and eyes free data entry by voice. In particular, Applicants' claimed invention is directed toward entry of sequential data, such as license plate numbers, by concatenation of blocks of text recognized from input utterances separated by natural speech pauses, with audio feedback that reflects the sequence of recognized values obtained from input utterances. For example, independent claim 1, especially as amended, recites

“obtaining blocks of text from input utterances separated from other input utterances by natural speech pauses, exactly one block of text per input utterance; determining whether a block of text contains recognized values as opposed to commands; populating a license plate number field of a form by concatenating, based on a sequence of input utterances from which the blocks of text are obtained, blocks of text determined to contain recognized values”. Independent claim 1 also recites “echoing blocks of text back to the speaker via a text-to-speech system, wherein audio feedback echoing the blocks of text is performed upon interpretation of each input utterance, and a sequence of recognized values echoed in the audio feedback exactly reflects a sequence of spotted words within the input utterance from which the recognized values are obtained”. Independent claim 10 recites similar subject matter. Moreover, dependent claim 23 recites “affording the speaker an opportunity to correct recognition errors by: (a) speaking a command operable to designate a particular one of plural recognized blocks of text in the license plate field for replacement; and (b) providing a subsequent input utterance containing field specific values to replace the particular recognized block of text in the license plate field without replacing at least one other recognized block of text in the license plate field”. Dependent claim 25 recites similar subject matter. Thus, Takebayashi et al. does not teach all of the elements recited in the amended claims.

Applicants respectfully request the Examiner withdraw the rejections of independent claims 1 and 10 under 35 U.S.C. §102(b) based on Takebayashi et al., along with rejections on these grounds of all claims dependent therefrom.

REJECTION UNDER 35 U.S.C. § 103

Claims 4, 5, 11, 12, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takebayashi et al. (U.S. Pat. No. 5,577,165) in view of LaRue (U.S. Pat. No. 5,748,840). This rejection is respectfully traversed.

For discussion of Takebayashi et al., Applicants respectfully direct the Examiner's attention to remarks detailed above respective of rejection under 35 U.S.C. 102(b).

La Rue is generally directed toward recognition of spelled or spoken words in a large database. In particular, La Rue is directed toward automatic speaker adaptation for improved recognition. However, La Rue does not teach the elements of the amended claims detailed above. Thus, neither Takebayashi et al. nor La Rue teach all of the elements of the amended claims.

Accordingly, Applicants respectfully request the Examiner withdraw the rejection of Claims 4, 5, 11, 12, and 16 under 35 U.S.C. § 103(a) based on their dependence from allowable base claims.

Claims 7 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takebayashi et al. (U.S. Pat. No. 5,577,165) in view of Cornelison (U.S. Pat. No. 5,263,118). This rejection is respectfully traversed.

For discussion of Takebayashi et al., Applicants respectfully direct the Examiner's attention to remarks detailed above respective of rejection under 35 U.S.C. 102(b).

Cornelison is generally directed toward a parking ticket enforcement system. In particular, Cornelison is directed toward search of license plates by key words of letters

and numbers through voice input by a police officer. However, Cornelison does not teach the elements of the amended claims detailed above. Thus, neither Takebayashi et al. nor Cornelison teach all of the elements of the amended claims.

Accordingly, Applicants respectfully request the Examiner withdraw the rejection of Claims 7 and 18 under 35 U.S.C. § 103(a) based on their dependence from allowable base claims.

Claims 21 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takebayashi et al. (U.S. Pat. No. 5,577,165) in view of Richards (U.S. Pat. No. 6,038,534). This rejection is respectfully traversed.

For discussion of Takebayashi et al., Applicants respectfully direct the Examiner's attention to remarks detailed above respective of rejection under 35 U.S.C. 102(b).

Richards is generally directed toward mimicking voice commands as keyboard signals. In particular, Richards is directed toward a sound engine capable of running in a full duplex mode. However, Richards does not teach the elements of the amended claims detailed above. Thus, neither Takebayashi et al. nor Rishards teach all of the elements of the amended claims.

Accordingly, Applicants respectfully request the Examiner withdraw the rejection of Claims 21 and 22 under 35 U.S.C. § 103(a) based on their dependence from allowable base claims.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests

that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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